Serial No. 10/724,628 Page 3 of 8

IN THE CLAIMS:

Please enter the following amended claims as follows:

- 1. (currently amended) A diffuser arrangement of a combustor for an engine, the diffuser arrangement comprising a wall surface in a fluid flow conduit formed with an aperture between an upstream part of the wall surface and a downstream part of the wall surface, the arrangement wherein the downstream part having a step displacement away from a projected profile of the upstream part of the wall surface whereby in use flow momentum in a fluid flow past the wall surface facilitates flow bleed into the aperture; wherein the step displacement is between 0.05 and 0.12 of the conduit radius.
- 2. (original) An arrangement as claimed in claim 1 wherein the upstream part has a leading edge to the aperture shaped to enhance flow momentum thereabout towards the aperture.
- 3. (original) An arrangement as claimed in claim 2 wherein the leading edge is curved into the aperture.
- 4. (currently amended) An arrangement as claimed in claim 3 wherein the leading edge has a curvature dependent upon expected flow rate and/or and cross-section of the conduit including the wall surface.
- 5. (currenty amended) An arrangement as claimed in claim 3 wherein the leading edge will have a radius in the order of between 0.05 to 0.15 of [[a]] the conduit inlet passage height.
- 6. (original) Apparatus as claimed in claim 5 wherein the leading edge has a radius in the order of between 0.09 to 0.11 of the conduit inlet passage height.
- 7. (currently amended) An arrangement as claimed in claim 1 wherein the downstream part has a trailing edge to the aperture which is substantially angularly presented.
- 8. (original) An arrangement as claimed in claim 1 wherein the downstream part is at an angle up to 35° to the principal axis of fluid flow in the conduit.
- 9. (original) Apparatus as claimed in claim 8 wherein the angle is 30° to the principal axis of fluid flow in the conduit.

- 10. (cancelled).
- 11. (currently amended) Apparatus as claimed in claim [[10]] 1 wherein the step displacement is in the order of between 0.06 to 0.1 of the conduit radius or half the conduit cross-sectional width.
- 12. (original) An arrangement as claimed in claim 1 wherein the aperture is divergent away from an opening in the wall surface.
- 13. (currently amended) An arrangement as claimed in claim 1 wherein the aperture has a width at the wall surface in the order of between 0.04 to 0.07 of the conduit radius or half the conduit cross-sectional width.
- 14. (currently amended) An arrangement as claimed in claim 13 wherein the width is in the order of between 0.05 to 0.06 of the conduit radius or half the conduit cross-sectional width.
- 15. (original) An arrangement as claimed in claim 1 wherein the aperture has an aperture wall upon the side towards the downstream part which is substantially perpendicular to the principal axis of fluid flow in the conduit.
- 16. (original) An arrangement as claimed in claim 1 wherein the combined length of the wall surface is three to four times a conduit inlet passage height.
- 17. (original) An arrangement as claimed in claim 1 wherein the aperture is coupled to a cooling system of an engine.
- 18. (cancelled).
- 19. (previously presented) An engine incorporating a diffuser arrangement as claimed in claim 1.
- 20. (new) An arrangement as claimed in claim 1 wherein the upstream part of the wall is divergent.
- 21. (new) A diffuser arrangement of a combustor for an engine, the diffuser arrangement comprising a wall surface in a fluid flow conduit formed with an aperture between an upstream part of the wall surface and a downstream part of the wall surface, the downstream part having a step displacement away from a projected profile of the upstream part of the wall surface whereby in use flow momentum in a fluid flow past the wall surface facilitates flow bleed into the aperture; wherein the step displacement is half the conduit cross-sectional width.

22. (new) Apparatus as claimed in claim 21 wherein the step displacement is half the conduit cross-sectional width..